RENERGY

Land application Standard Operating Procedures and Restrictions According to OAC 3745-40-08

- Beneficial Use Land Application (BUA) of Class B Biosolids shall be done in accordance to all regulations described in the Ohio Administrative Code 3745-40. Class B Biosolids may be utilized at an agronomic rate that is specific for each beneficial use site.

- Agronomic rates will be calculated utilizing the OEPA ARC sheets and an ARC summary provided to contracted operators prior to any land application event by Renergy. ARC's and ARC Summaries will be completed and stored digitally on our BOX file storage system. The ARC summary as well as field maps will be supplied to contractors before scheduled land application

- Check Field Conditions - Just prior to biosolids application, check the condition of the fields for wetness and adequate access. Scheduled applications may have to be postponed due to weather restrictions or 100% saturated soil conditions in the top few inches.

- Land application equipment should be designed and maintained to ensure that biosolids are applied evenly across the field at the proper application rate. Application equipment (box spreaders or liquid applicators) should be calibrated regularly.

- Precipitation Prohibitions and Restrictions

    - Beneficial Use of Class B Biosolids shall not be applied during a significant and prolonged precipitation event.
    - For BUA sites with a dominant soil hydrological group A-C
        - If there is at least a 50% chance of precipitation over ½", surface application of Class B Biosolids may not be applied within 24 hours prior to the expected time of the rainfall event.
        - Class B Biosolids may be applied within 24 hours of a ½" rainfall (chance of 50% or greater) if the method of application is through injection.
    - For BUA sites with a dominant soil hydrological group D
        - If there is at least a 50% chance of precipitation over ¼", surface application of Class B Biosolids may not be applied within 24 hours prior to the expected time of the rainfall event.
        - Class B Biosolids may be applied within 24 hours of a ¼" rainfall (chance or 50% or greater) if the method of application is through injection.
    - Weather documentation must be kept on file, daily, during all BUA events. This can be done by going to weather.gov. Select the nearest location that

provides weather information. Print off the "Hourly Weather Graph" and keep on file.

- Isolation Distances/Buffer Zones

Table C-1: Isolation distance requirements-

	Surface application isolation distance requirements (feet)	Injection or immediately incorporated isolation distance requirements (feet)	Applicable biosolids classification
Bedrock	3	3	Class B or bulk exceptional quality
Surface waters of the state	33	33	Class B or bulk exceptional quality
Sinkhole or UIC class V drainage	300 without grass buffer; 100 with a grass buffer	300 without grass buffer; 100 with a grass buffer	Class B or bulk exceptional quality
Occupied Building	300	100	Class B
Private potable water source	300	100	Class B
Medical care facility	1000	300	Class B

Note: All Buffer Zones must be acknowledged Prior to BUA event by supplying the land application contractor with buffer map.

- Frozen or Snow Covered Ground
    - Between December 15th and March 1st BUA can only be done through injection (preferred) or same day incorporation. Same day incorporation is incorporation within 6 hours after biosolids are surface applied.
    - Between March 1st and December 15th surface application of Class B biosolids is prohibited on frozen or snow covered ground unless:
        - There is no less than 90% ground cover (grass, corn fodder, etc.) and there is no cover of ice or snow.
        - Surface application may not exceed an application rate of 5,000 gallons per acre
        - Application may not occur on more than 20 contiguous acres. Application can be no closer than two hundred feet from surface waters of the state or water ways.

    - Attention must be given to outlets of BUA site surface drainage tile during and after application events. The OEPA must be notified within two hours if a runoff or seepage of Class B through drainage tile outlets is observed.

- BUA sites with subsurface tile drainage
    - All field tile outlets must be visually monitored before, during, and after BUA events. Monitoring will be documented and kept on file.
    - Methods or devices to stop or capture subsurface drain flow shall be immediately accessible.
    - If Class B biosolids reach the tile outlet to the surface waters of the state the beneficial use of biosolids shall cease and flow shall be stopped or captured and the OEPA must be notified no more than two hours after the observation is made.
    - Application rates may not exceed 13,000 gallons per acre regardless of application method (surface or incorporation).
    - If injection is used biosolids shall only be injected deep enough to cover the biosolids with soil but no less than 3 inches below the surface.
    - If injection is not an option or the farmer's desire all tile outlets at the BUA site are to be plugged at the time of the BUA event.

- Class B Biosolids BUA signs – According to OAC 3745-40-11
    - All BUA sites must have signs posted (signs provided by Renergy) no less than 7 days prior to a BUA application event.
    - Signs must be left at site no less than 30 days after BUA events are finished.
    - Must face each road frontage, within twenty-five feet of the road.
    - Are unobstructed from view.

- Documentation
    - Daily Logs of beneficial use application of Class B Biosolids must be documented and available at AD site for no less than 5 years.
    - Weather documentation during BUA events (see Precipitation Prohibitions and Restrictions)
    - Documentation of sign posting, buffer flagging, and tile outlet monitoring must be kept on file at AD site.

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